

CLAIMS

1. A device for determining the version of metal mask utilized for producing a given metal layer in an integrated circuit comprising a plurality of metal layers,
5 any modification made to the given metal layer requiring generation of a new version of the corresponding metal mask, the device comprising:
a cell integrated into the metal layer comprising:
at least a first voltage source for supplying a first voltage level,
at least a second voltage source for supplying a second voltage
10 level, and
an output bus composed of at least one conductor wire connected selectively to one of the first and second voltage sources as a function of the version of metal mask used to produce the metal layer, so as to generate a binary output signal representative of the mask version utilized.
15
2. The device as claimed in Claim 1, wherein the output bus of the cell comprises two conductor wires.
3. The device as claimed in Claim 2, wherein the number of conductor
20 wires comprising the output bus of the cell is proportional to the number of versions of metal mask able to be utilized for the given metal layer.
4. The device as claimed in Claim 1, wherein the number of conductor wires comprising the output bus of the cell is proportional to the number of
25 versions of metal mask able to be utilized for the given metal layer.

EXPRESS MAIL LABEL NO. EV343426584US

5. The device as claimed in Claim 4, wherein the first voltage source comprises a supply terminal.

6. The device as claimed in Claim 4, wherein the second voltage source
5 comprises an earth terminal.

7. The device as claimed in Claim 4, wherein inside the cell each conductor wire making up the output bus is routed close to the first voltage source and to the second voltage source so as to facilitate the connections and
10 disconnections from one to the other.

8. The device as claimed in Claim 1, wherein inside the cell each conductor wire making up the output bus is routed close to the first voltage source and to the second voltage source so as to facilitate the connections
15 and disconnections from one to the other.

9. The device as claimed in Claim 8, wherein the first voltage source comprises a supply terminal.

20 10. The device as claimed in Claim 8, wherein the second voltage source comprises an earth terminal.

11. The device as claimed in Claim 1, wherein the first voltage source comprises a supply terminal.

25

EXPRESS MAIL LABEL NO. EV343426584US

12. The device as claimed in Claim 1, wherein the second voltage source comprises an earth terminal.

13. An integrated circuit comprising a plurality of metal layers, wherein
5 each metal layer comprises:

a cell integrated into the respective each metal layer comprising:

at least a first voltage source for supplying a first voltage level,

at least a second voltage source for supplying a second voltage
level, and

10 an output bus composed of at least one conductor wire
connected selectively to one of the first and second voltage sources as a
function of the version of metal mask used to produce the respective each
metal layer, so as to generate a binary output signal representative of the mask
version utilized.

15

14. The integrated circuit as claimed in Claim 13, wherein the output bus of
the cell comprises two conductor wires.

15. The integrated circuit as claimed in Claim 14, wherein the number of
20 conductor wires comprising the output bus of the cell is proportional to the
number of versions of metal mask able to be utilized for the given metal layer.

16. The integrated circuit as claimed in Claim 13, wherein the number of
conductor wires comprising the output bus of the cell is proportional to the
25 number of versions of metal mask able to be utilized for the given metal layer.

EXPRESS MAIL LABEL NO. EV343426584US

17. The integrated circuit as claimed in Claim 16, wherein the first voltage source comprises a supply terminal.

18. The integrated circuit as claimed in Claim 16, wherein the second
5 voltage source comprises an earth terminal.

19. The integrated circuit as claimed in Claim 16, wherein inside the cell each conductor wire making up the output bus is routed close to the first voltage source and to the second voltage source so as to facilitate the
10 connections and disconnections from one to the other.

20. The integrated circuit as claimed in Claim 13, wherein inside the cell each conductor wire making up the output bus is routed close to the first voltage source and to the second voltage source so as to facilitate the
15 connections and disconnections from one to the other.

21. The integrated circuit as claimed in Claim 20, wherein the first voltage source comprises a supply terminal.

20 22. The integrated circuit as claimed in Claim 20, wherein the second voltage source comprises an earth terminal.

23. The integrated circuit as claimed in Claim 13, wherein the first voltage source comprises a supply terminal.

25

EXPRESS MAIL LABEL NO. EV343426584US

24. The integrated circuit as claimed in Claim 13, wherein the second voltage source comprises an earth terminal.